REVISED

State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE:	11-19-2012
API #:	47-069-00065

Well Operator's Report of Well Work

Farm name: George Gantzer 6H	Operator We	ll No.: 832740		
LOCATION: Elevation: 1260'	Quadrangle:	Valley Grove	***************************************	
District: Tridelphla	County: Ohio	ı		
Latitude: 4740' Feet South of 40 Deg.	05 Min	ı. <u>00</u> Sec	÷.	
Longitude 13770 Feet West of 80 Deg.	. <u>35</u> Mir	n. <u>00</u> Sec	: .	
Company: Chesapeake Appalachia, L.L.C.		_		
Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	20"	100'	100'	208 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	640'	640'	685 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	2116'	2116'	926 Cu. Ft.
Date Permit Issued: 2-18-2011	5 1/2"	12758'	12758'	2672 Cu. Ft.
Date Well Work Commenced: 3-18-2012				
Date Well Work Completed: 4-30-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 6496'				
Total Measured Depth (ft): 12758'				
Fresh Water Depth (ft.): 30'				<u> </u>
Salt Water Depth (ft.): 1135'	1			
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 575'				
Void(s) encountered (N/Y) Depth(s) Y 575'				
	<u> </u>	<u> </u>	_1,.,	-
OPEN FLOW DATA (If more than two producing formati			ata on separate s	sheet)
Producing formation Marcellus Pay Gas: Initial open flow MCF/d Oil: Initial open flow				
Final open flow 2153* MCF/d Final open flow		bl/d		
Time of open flow between initial and final tests 96		s *Calculated		
Static rock Pressure 4223* psig (surface pressure) a		ırs		
Second producing formation Pay zo	nna danth (A)		Ш	
Gas: Initial open flow MCF/d Oil: Initial open flow			ENVIRONIT)FF
Final open flow MCF/d Final open flow			RO.	N C
Time of open flow between initial and final tests			A	
Static rock Pressurepsig (surface pressure) a	fterHo	urs	a a	FOIL 20 1
I certify under penalty of law that I have personally examined	and am familia	r with the infor	mation submitte	d on this document an
all the attachments and that, based on my inquiry of those indi	ividuals immed	iately responsib	le for obtaining	the information I belie
that the information is true, accurate, and complete.		11	_	AS 18
Mari Lan	^ `	11	1/2 2010	مكم

Were core samples taken? YesNo_N	Were cuttings caught during drilling? Yes Y No
Were Electrical, Mechanical or Geophysical logs recorded on this LWD GR from 5882-12758' MD.	well? If yes, please list
NOTE: IN THE AREA BELOW PUT THE FOLLOW FRACTURING OR STIMULATING, PHYSICAL CHANGI DETAILED GEOLOGICAL RECORD OF THE TOPS A COAL ENCOUNTERED BY THE WELLBORE FROM SUI	E, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC AND BOTTOMS OF ALL FORMATIONS, INCLUDING
Perforated Intervals, Fracturing, or Stimulating:	-
(See Attached)	
Plug Back Details Including Plug Type and Depth(s):	
Formations Encountered: Top Dept Surface:	th / Bottom Depth
(See Attached)	

LATERAL SIDETRACK WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 6496 ft TVD @ 12758 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS/SS	0	0	575	575
PITTSBURG COAL	575	575	585	585
LS/SHALE	585	585	700	700
SS	700	700	1200	1200
SHALE	1200	1200	1290	1290
SS	1290	1290	1750	1750
BIG LIME (LS)	1750	1750	1800	1800
BIG INJUN (SS)	1800	1800	2011	2011
SHALE	2011	2011	6348	6196
GENESEO (SH)	6348	6196	6374	6218
TULLY (LS)	6374	6218	6421	6253
HAMILTON (SH)	6421	6253	6610	6360
MARCELLUS (SH)	6610	6360		
TD OF LATERAL			12758	6496

PERFORATION RECORD ATTACHMENT

Well Number and Name: 832740 George Gantzer 6H

PERFO	RATION RE	CORD	STIMULATION RECORD				· · · · · · · · · · · · · · · · · · ·			
	Interval F	erforated				F	luid	Propp	ing Agent	Average
Date	From	To	Date	Interval	Treated	Туре	Amount	Туре	Amount	Injection
4/16/2012		12,601	4/26/2012	12,038	12,601	Slk wtr	10,779	Sand	640,820	86
4/26/2012		11,959	4/26/2012	11,396	11,959	Slk wtr	10,666	Sand	640,680	85
4/26/2012		11,317	4/27/2012	10,753	11,317	Slk wtr	10,862	Sand	641,560	86
4/27/2012	10,111	10,674	4/27/2012	10,111	10,674	Sik wtr	10,792	Sand	641,040	85
4/27/2012		10,032	4/27/2012	9,472	10,032	Slk wtr	10,834	Sand	640,060	85
4/27/2012	8,827	9,390	4/28/2012	8,827	9,390	Sik wtr	10,392	Sand	640,860	84
4/29/2012	8,184	8,748	4/29/2012	8,184	8,748	Sik wtr	10,408	Sand	641,480	85
4/29/2012	7,542	8,105	4/30/2012	7,542	8,105	Sik wtr	10,469	Sand	641,420	85
4/30/2012	6,900	7,463	4/30/2012	6,900	7,463	Sik wtr	10,514	Sand	640,380	84

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-19-2012	NP
API#:	47-069-00090	J

Farm name: Charles Frye OHI 5H			Operator Well No.: 833121		
LOCATION: Elevation: 1260'			Quadrangle: Valley Grove, WV		
District: Triadelphia		Count	ty: Ohio		
Latitude: 10350'	Feet South of 40	Deg. 05	Min. 00	Sec.	
Longitude 10960.	Feet West of 80	Deg. 32	Min. 30	Sec.	

Chesapeake Appalachia, L.L.C. Company: Used in Left in well Cement fill Casing & P.O. Box 18496 Address: **Tubing** drilling up Cu. Ft. Oklahoma City, OK 73154-0496 20" 110' 110' 224 Cu. Ft. Eric Gillespie 13 3/8" 676' 676' 767 Cu. Ft. Agent: Inspector: Derek Haught 9 5/8" 1015 Cu. Ft. 2197' 2197' 2933 Cu. Ft. Date Permit Issued: 7-11-2011 5 1/2" 12917' 12917' 8-17-2011 Date Well Work Commenced: 3-2-2012 Date Well Work Completed: Verbal Plugging: Date Permission granted on: Rotary V Cable Rig Total Vertical Depth (ft): 6503' Total Measured Depth (ft): 12917' Fresh Water Depth (ft.): 78', 300' 1135' Salt Water Depth (ft.): Is coal being mined in area (N/Y)? N Coal Depths (ft.): 632' Void(s) encountered (N/Y) Depth(s) Y 632'

	than two producing formations ple		separate sheet)	
Producing formation Marcel	us Pay zone d	epth (ft) 6,698' - 12,784'		
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d		
Final open flow 1,905*	_MCF/d Final open flow 155			
Time of open flow between	een initial and final tests 96	Hours *Calculated		
Static rock Pressure 4,209*	psig (surface pressure) after	Hours		
Second producing formation	nPay zone dep	oth (ft)		
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d		
Final open flow	MCF/d Final open flow	Bbl/d		유
Time of open flow between	een initial and final tests	Hours	2012 N	OFFICE
Static rock Pressure	psig (surface pressure) after	Hours	No.	
			<u> </u>	00
ertify under penalty of law that	I have personally examined and an	n familiar with the information	submitted on the	s document

I certify under penalty of law that I have personally examined and am familiar with the information submitted on the document and that, based on my inquiry of those individuals immediately responsible for obtaining the information is true, accurate, and complete.

Mulant Welliams
Signature

11-19-301) Date GAS 1: 18

Were core samples taken? YesNo_X	Were cutting	s caught during drilling?	Yes X No
Were Electrical, Mechanical or Geophysical logs recorded MWD GR in lateral	d on this well? If yes, p	please list	
NOTE: IN THE AREA BELOW PUT THE FOUND FOR STIMULATING, PHYSICAL CONTROL OF THE COAL ENCOUNTERED BY THE WELLBORE FROM	HANGE, ETC. 2). THE	HE WELL LOG WHICH MS OF ALL FORMA	H IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stimulating:			
(See Attached)			
Plug Back Details Including Plug Type and Depth(s):			
Formations Encountered: Surface:	Top Depth	1	Bottom Depth
(See Attached)			

LATERAL WELLBORE

Maximum TVD of wellbore: 6503 ft TVD @ 7101 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SHALE/LS	0	0	530	530
SS/SHALE	530	530	560	560
LS/SHALE	560	560	618	618
PITTSBURGH COAL	618	618	630	630
LS/SHALE	630	630	650	650
SS/SHALE	650	650	680	680
SHALE	680	680	1090	1090
SS/SHALE	1090	1090	1620	1620
LS/SHALE	1620	1620	1650	1650
LS	1650	1650	1680	1680
LS/SS	1680	1680	1720	1720
SS	1720	1720	2000	2000
SS/SHALE	2000	2000	2020	2020
BASE OF BIG INJUN	2020	2020		0
SHALE	2020	2020	4600	4600
SHALE/SS	4600	4600	4680	4680
SHALE	4680	4680	6465	6308
GENESEO	6465	6308	6497	6332
TULLY	6497	6332	6545	6364
HAMILTON	6545	6364	6791	6476
MARCELLUS	6791	6476	12917	6452
TD	12917	6452		0
		0		0

PERFORATION RECORD ATTACHMENT

Well Number and Name: 833121 Charles Frye OHI 5H

PERFO	RATION RE	CORD	STIMULATION RECORD							
	interval P	erforated				F	luid	Proppi	ing Agent	Average
Date	From	То	Date	Interval	Treated	Туре	Amount	Туре	Amount	Injection
1/10/2012	12,417	12,784	2/18/2012	12,417	12,784	Sik wtr	12,257	Sand	571,190	77
2/18/2012	11,957	12,324	2/18/2012	11,957	12,324	Sik wtr	10,768	Sand	571,940	85
2/19/2012	11,498	11,864	2/19/2012	11,498	11,864	Sik wtr	11,054	Sand	570,100	83
2/19/2012	11,038	11,405	2/20/2012	11,038	11,405	Sik wtr	10,684	Sand	572,460	86
2/20/2012	10,578	10,945	2/21/2012	10,578	10,945	Sik wtr	10,875	Sand	514,360	85
2/21/2012	10,118	10,485	2/22/2012	10,118	10,485	Sik wtr	10,871	Sand	576,440	85
2/23/2012	9,659	10,025	2/23/2012	9,659	10,025	Sik wtr	12,672	Sand	567,320	79
2/23/2012	9,199	9,566	2/24/2012	9,199	9,566	Slk wtr	10,482	Sand	554,980	83
2/24/2012	8,739	9,106	2/26/2012	8,739	9,106	Slk wtr	10,370	Sand	582,440	80
2/26/2012	8,279	8,646	2/28/2012	8,279	8,646	Sik wtr	11,904	Sand	570,660	83
2/28/2012	7,820	8,186	2/29/2012	7,820	8,186	Sik wtr	10,636	Sand	571,360	85
2/29/2012	7,360	7,727	3/1/2012	7,360	7,727	Sik wtr	10,899	Sand	435,380	81
3/1/2012	6,898	7,267	3/2/2012	6,898	7,267	Slk wtr	11,221	Sand	570,360	83
								<u> </u>		
L								<u> </u>		
			<u> </u>				<u> </u>		<u></u>	<u> </u>

REVISED State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-19-2012	-10
API#:	47-069-00101	():

Farm name: George Gantzer OHI 3H	<u> </u>		_ Operato	or Well No.: 83	34153	
LOCATION: Elevation: 1260'			Quadrai	ngle: Valley Gro	ove	744
District: Tridelphia			_ County:	Ohio		
Latitude: 4760	Feet South	of 40 De	g. <u>05</u>	Min. 00	Sec.	
Longitude 13950'	_Feet West	of 80 De	g. 35	Min. 00	Sec.	

Company: Chesapeake Appalachia, L.L.C.				
Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	20"	100'	100'	353 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	652'	652'	684 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	2135'	2135'	926 Cu. Ft.
Date Permit Issued: 11-15-2011	5 1/2"	12587'	12587'	2655 Cu. Ft.
Date Well Work Commenced: 2-1-2012				
Date Well Work Completed: 5-1-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 6396'				
Total Measured Depth (ft): 12587'				
Fresh Water Depth (ft.): 30'				
Salt Water Depth (ft.): 1135'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 575'				
Void(s) encountered (N/Y) Depth(s) Y 580'				

OPEN FLOW DATA (If more to	han two producing formations ple	ase include additional data or	n separate sheet)	
Producing formation Marcellu	Pay zone do	epth (ft) 6,900' - 12,451'		
Gas: Initial open flow	_MCF/d Oil: Initial open flow	Bbl/d		
Final open flow 1,567*	_MCF/d Final open flow 101	Bbl/d		
Time of open flow between	en initial and final tests 72	Hours *Calculated		
Static rock Pressure 4,109*	psig (surface pressure) after	Hours		
Second producing formation	Pay zone dep	th (ft)		
Gas: Initial open flow	_MCF/d Oil: Initial open flow	Bbl/d		
Final open flow	_MCF/d Final open flow	Bbl/d	平 29	
Time of open flow between	en initial and final tests	Hours	OFFICE	
Static rock Pressure	psig (surface pressure) after	Hours	A A A	四
			温泉 2.5	ig.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information are level to the control of the con that the information is true, accurate, and complete.

Were core samples taken? YesNo_	Were cuttings caught during drilling? Yes Y No
Were Electrical, Mechanical or Geophysical LWD GR from 5813-12587 MD.	logs recorded on this well? If yes, please list
FRACTURING OR STIMULATING, PH DETAILED GEOLOGICAL RECORD	T THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, IYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING LBORE FROM SURFACE TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimulating	ng:
(See Attached)	
Plug Back Details Including Plug Type and I	Danth(c):
	pepui(s).
Formations Encountered: Surface:	Top Depth / Bottom Depth
(See Attached)	

PERFORATION RECORD ATTACHMENT

Well Number and Name: 834153 George Gantzer OHI 3H

PERFORATION RECORD			STIMULATION RECORD							
Interval Perforated					F	Fluid		Propping Agent		
Date	From	То	Date	Interval	Treated	Туре	Amount	Туре	Amount	Average Injection
4/15/2012	11,926	12,451	4/26/2012	11,926	12,451	Sik wtr	10,302	Sand	628,600	83
4/26/2012	11,298	11,824	4/28/2012	11,298	11,824	Sik wtr	11,331	Sand	629,740	83
4/28/2012	10,670	11,195	4/28/2012	10,670	11,195	Sik wtr	10,582	Sand	630,720	79
4/28/2012	10,045	10,566	4/29/2012	10,045	10,566	Sik wtr	10,480	Sand	630,300	84
4/29/2012	9,413	9,938	4/29/2012	9,413	9,938	Slk wtr	10,144	Sand	631,460	85
4/29/2012	8,785	9,310	4/30/2012	8,785	9,310	Slk wtr	10,070	Sand	630,360	85
4/30/2012	8,153	8,686	4/30/2012	8,153	8,686	Sik wtr	9,928	Sand	630,800	83
4/30/2012	7,530	8,053	5/1/2012	7,530	8,053	Slk wtr	10,168	Sand	631,920	85
5/1/2012	6,900	7,425	5/1/2012	6,900	7,425	Slk wtr	9,976	Sand	634,080	85

LATERAL SIDETRACK WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 6396 ft TVD @ 6784 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS/SS	0	0	575	575
PITTSBURG COAL	575	575	585	585
LS/SHALE	585	585	700	700
SS	700	700	1200	1200
SHALE	1200	1200	1290	1290
SS	1290	1290	1750	1750
BIG LIME (LS)	1750	1750	1800	1800
BIG INJUN (SS)	1800	1800	2011	2011
SHALE	2011	2011	6234	6204
GENESEO (SH)	6234	6204	6266	6227
TULLY (LS)	6266	6227	6313	6259
HAMILTON (SH)	6313	6259	6501	6357
MARCELLUS (SH)	6501	6357		
TD OF LATERAL			12587	6323

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/15/12
API#:	47-7500039

Farm name: U.S. Dept of the Interior			Operator Well No.: 7479			
LOCATION: Elevation: 374	7 ft	Quad	lrangle: Sinks of	Gandy		
District: Green Bank	;	Cour	nty: Pocahontas			
Latitude: 15,050	Feet South of 38	Deg. 45	Min. CO	Sec.		

Company: Columbia Gas Transmission, LLC

Company: Columbia Gas Transmission, LLC				
Address: 1700 MacCorkle Ave SE	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Charleston, WV 25325-1273	13.625	33	33	15
Agent: Paul Amick	9.625	1401	1401	530
Inspector: Joe McCourt	7	6084	6084	267
Date Permit Issued: 5/4/12	2.375 tbg pulled			
Date Well Work Commenced: 6/1/12				
Date Well Work Completed: 11/9/12				
Verbal Plugging: NA			FA FE CO. N.	
Date Permission granted on:			RECEI	AED
Rotary Cable Rig 🗸			ffice of O	リダ Gas
Total Vertical Depth (ft):			NOV 26	2012
Total Measured Depth (ft): 6242 (when drilled in 1986)				
Fresh Water Depth (ft.): 90, 350, 740 (as rptd by driller)		N	V Depart	mant of
Salt Water Depth (ft.): none rptd by driller		Envir	Dnr-	- teotion
Is coal being mined in area (N/Y)? N				11.11
Coal Depths (ft.): NA				
Void(s) encountered (N/Y) Depth(s) none rptd				

OF	PEN FLOW DATA (If more th	an two pr	oducing formations p	lease include additional	data on separate sheet)
	Producing formation Oriskany		Pay zone	depth (ft) 6185 - 6200	
	Gas: Initial open flow	MCF/d C	oil: Initial open flow_	Bbl/d	
	Final open flow	MCF/d	Final open flow	Bbl/d	
	Time of open flow between	n initial ar	nd final tests	Hours	
	Static rock Pressure	_psig (sur	face pressure) after _	Hours	
	Second producing formation		Pay zone de	epth (ft)	
	Gas: Initial open flow				
	Final open flow	MCF/d	Final open flow	Bbl/d	
	Time of open flow between	n initial ar	nd final tests	Hours	
	Static rock Pressure	_psig (sur	face pressure) after _	Hours	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Date

Were core samples taken? YesNo	OX Were cuttings caught during drilling? YesNON
Were Electrical, Mechanical or Geophysica	al logs recorded on this well? If yes, please list MicroVertilog (pipe inspecti
FRACTURING OR STIMULATING, P DETAILED GEOLOGICAL RECORD	PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVENCES. PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEM D OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUILBORE FROM SURFACE TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimula	ating:
Acid Treatment: 8,736 gals HCl aci	id - 250 bbls fresh water - 196 MSCF nitrogen
Plug Back Details Including Plug Type and	d Depth(s):
Formations Encountered: Surface:	Top Depth / Bottom Depth
NA - existing well permitted as wor	RECEIVED
	Office of Oil 3 Ga
	NUV 2 6 1012
	WV Department

API#

07/06/2012 47-103-02800

State of West Virginia Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

DALLISON LUMBER INC.

Operator Well No.: L.S. HOYT 290

LOCATION:

Elevation:

1,347'

Quadrangle: P

PINE GROVE 7.5'

District:

GRANT

County: WETZEL

Latitude:

12,400 Feet south of

39 Deg 37 Min 30 Sec.

Longitude:

7,775 Feet west of

80 Deg 37 Min

30 Sec.

Company Address:	HG Energ PO Box 5: Vienna, W	519	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek	Haught				
Date Permit Is	ssued:	07/06/2012				
Date Well Wo	ork Commenced:	08/02/2012				
Date Well Wo	ork Completed:	08/22/2012	_			
Verbal Pluggi	ng:					
Date Permissi	on Granted On:					
Rotary X	Cable	Rig	7"	1320'	1320'	345 sks
Total vertical	Depth (ft):	3324'				
Total Measure	ed Depth (ft):	3642'				
Fresh Water I	Depth (ft):	none	4 ½"	3561.25'	3561.25'	200 sks
Salt Water De	pth (ft):	none				
Is Coal being	mined in ares (Y/N)	? No]			
Coal Depths (ft): x	1148'-1156'				
Void(s) encou	intered (Y/N) depth(NONE	(s):		i		

OPEN FLOW DATA	* Waterflood				
	This well drilled direct	ctionally 115° SE a	distance of 871'.		3417'-3428'
Producing for		Gordon		e depth (ft)	3435'-3437'
	l open flow	* MCF/d	Oil: Initial open	flow	* Bbl/d
	open flow	* MCF/d-	Final open fl	low	* Bbl/d
Time	of open flow between	en initial and fina	al tests	* Hou	rs
Static rock pr		*psig (su	rface pressure)	after	* Hours
Second produ	cing formation		Pay zon	ie depth 🐠	
	l open flow	MCF/d	Oil: Initial open	flow 🤼 🧖	Bbl/d
Final	open flow	MCF/d	Final open fl	low	Bbl/d 6
Time	of open flow between	en initial and fina	al tests		irs Bbl/d
Static rock pr		psig (su	rface pressure)	after	Hours
•			e .		1 Doctor and all the

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

(0/2/12 Dato NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

<u>Treatment:</u> Treated perfs 3417'-3428', 3431'-3434', & 3435'-3437' w/ 500 gals 15% HCL acid, 238 bbls cross linked gel, and 10,500# 20/40 sand.

Well Log: All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	1148
Coal	1148	-	1156
Shale w/ sand streaks	1156	-	1636
Sand	1636	-	1674
shale	1674	-	1748
sand	1748	-	1786
shale	1786	-	1805
sand	1805	-	1878
shale	1878	-	1982
sand	1982	-	1998
shale	1998	-	2036
sand	2036	-	2077
shale	2077	-	2173
sand	2173	-	2208
shale	2208	-	2226
sand	2226	-	2270
shale	2270	-	2260
sand	2260	-	2313
shale	2313	-	2327
sand	2327	-	2352
Big Lime	2352	-	2420
Big Injun	2420	-	2680
shale	2680	-	3372
Gordon Stray	3372	-	3404
shale	3404	-	3414
Gordon	3414	-	3438
shale	3438	-	3440
sand	3440	-	3444
shale	3444	-	3642
TD	3642		
T.DLogger	3596	КВ	
T.DDriller	3642	KB	

State of West Virginia

Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

DALLISON LUMBER INC.

Operator Well No.: L.S. HOYT 291

LOCATION:

Elevation:

1,346'

Quadrangle:

PINE GROVE 7.5'

District:

GRANT

County:

Latitude:

12,365 Feet south of

WETZEL 39 Deg 37 Min

30 Sec.

Longitude:

7,755 Feet west of

80 Deg 37 Min

30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek	Haught				
Date Permit Is	ssued:	07/06/2012		*		
Date Well Wo	ork Commenced:	08/09/2012				
Date Well Wo	ork Completed:	08/22/2012				
Verbal Pluggi	ng:					
Date Permission	on Granted On:					
Rotary X	Cable	Rig	7"	1320'	1320'	345 sks
Total vertical	Depth (ft):	3382'				
Total Measure	ed Depth (ft):	3825'				
Fresh Water D	epth (ft):	N/A	4 1/2"	3736'	3736'	200 sks
Salt Water De	pth (ft):	N/A				
Is Coal being	mined in ares (Y/N)	? No				
Coal Depths (t	ft): x	148'-1156'				
Void(s) encou	ntered (Y/N) depth(NONE	s):				
					ale and the second second	September 1990 and 1

OPEN FLOW DATA * Water	erflood Producer		
This well drille	d directionally 53° NE a	distance of 1193'.	3592'-3599'
Producing formation	Gordon	Pay zone depth	(ft) 3608'-3609'
Gas: Initial open flow	* MCF/d	Oil: Initial open flow	* Bbl/d
Final open flow	* MCF/d	Final open flow	* Bbl/d
Time of open flow	between initial and fina	il tests *	Hours
Static rock pressure		rface pressure) afte	r * Hours
Second producing formation		Pay zone depth	
Gas: Initial open flow	MCF/d	Oil: Initial open flow	Bbl/d
Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow	between initial and fina	il tests	Hours
Static rock pressure	psig (su	rface pressure) afte	r 4, 7 Mours
~		\mathcal{M}	1700

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the /0/2/12 November 1 information is true, accurate, and complete.

Were core samples taken?

No

Were cuttings caught during drilling? No

Were Y

Electrical, N

Y/N

Mechanical, N

Y/N

NOTE: IN THE AREA RELOW BUT THE FOLLOWING: 1) DETAILS OF REPEORATED INTERVALS FRACTURING OR

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

1148

1156

Treatment: Treated perfs 3592'-3599', 3601'-3607', & 3608'-3609' w/ 500 gals 15% HCL acid,

1148

238 bbls cross linked gel, and 10,600# 20/40 sand.

Well Log: All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks

Coal

Cour			
Shale w/ sand streaks	1156	-	1238
Sand	1238	-	1254
shale	1254	-	1640
sand	1640	-	1665
shale	1665	-	1732
sand	1732	-	1792
shale	1792	-	1800
sand	1800	-	1850
shale	1850	-	1858
sand	1858	-	1878
shale	1878	-	1990
sand	1990	-	2002
shale	2002	-	2040
sand	2040	-	2064
shale	2064	-	2170
sand	2170	-	2193
shale	2193	-	2224
sand	2224	-	2328
shale	2328	-	2341
sand	2341	-	2352
shale	2352	-	2354
Big Lime	2354	-	2422
Big Injun	2422	-	2706
shale	2706	-	3530
Gordon Stray	3530	-	3570
shale	3570	-	3580
Gordon	3580	-	3612
shale	3612	-	3614
sand	3614	-	3619
shale	3619	-	3635
sand	3635	-	3642
shale	3642	-	3825
TD	3825		
T.DLogger	3759	KB	
T.DDriller	3825	KB	

07/10/2012 47-103-02804

State of West Virginia **Division of Environmental Protection** Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

DALLISON LUMBER INC.

Operator Well No.: L.S. HOYT 293

LOCATION:

Elevation:

979'

Quadrangle:

PINE GROVE 7.5'

District:

GRANT

County: WETZEL

Latitude: Longitude: 9,400 Feet south of

39 Deg 37 Min 30 Sec.

6,525 Feet west of

80 Deg 37 Min 30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derel	c Haught				
Date Permit Is	ssued:	07/10/2012	_]			
Date Well Wo	ork Commenced:	07/30/2012]			•
Date Well Wo	ork Completed:	08/10/2012				
Verbal Pluggi	ng:					
Date Permissi	on Granted On:					
Rotary X	Cable	Rig	7"	966'	966'	250 sks
Total vertical	Depth (ft):	3020'				
Total Measure	ed Depth (ft):	3020'				
Fresh Water D	Depth (ft):	50'	4 ½"	2976.35'	2976.35'	150 sks
Salt Water De	pth (ft):	none		· · · · · · · · · · · · · · · · · · ·		
Is Coal being	mined in ares (Y/N)? No				
Coal Depths (700'-710'				
Void(s) encou	ntered (Y/N) depth NONE	(s):				

OPEN FLOW DATA

* Waterflood Producer

Produci	ng formation	Gord	on Pay zo	ne depth (ft) 2876'-	2879'
	Initial open flow	*	MCF/d Oil: Initial open	flow *	Bbl/d
	Final open flow	*	MCF/d Final open	flow *	Bbl/d
	Time of open flow	between initial		* Hours	
	ock pressure	*	_psig (surface pressure)	after *	Hours
Second	producing formation			ne depth (ft)	
	Initial open flow		MCF/d Oil: Initial open	flow	, Bbl/d
	Final open flow		MCF/d Final open		c Bp1/g
	Time of open flow	between initial	and final tests	Hours	
	ock pressure		_psig (surface pressure)	after	Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I beneve that the information is true, accurate, and complete.

| Total |

2865'-2875'

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Treatment: Treated perfs 2865'-2875' & 2876'-2879' w/ 500 gals 15% HCL acid,

313 bbls cross linked gel, and 20,000# 20/40 sand.

Well Log: All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	700
Coal	700	-	710
Shale w/ sand streaks	710	-	1314
Sand	1314	-	1348
shale	1348	-	1402
sand	1402	-	1445
shale	1445	-	1470
sand	1470	-	1506
shale	1506	-	1512
sand	1512	-	1550
shale	1550	-	1578
sand	1578	-	1598
shale	1598	-	1773
sand	1773	-	1790
shale	1790	-	1830
sand	1830	-	1856
shale	1856	-	1874
sand	1874	-	1956
shale	1956	-	1970
sand	1970	-	1978
shale	1978	-	1980
Big Lime	1980	-	2040
Big Injun	2040	-	2266
shale	2266	-	2839
Gordon Stray	2839	-	2854
shale	2854	-	2860
Gordon	2860	-	2880
shale	2880	-	2883
sand	2883	-	2888
shale	2888	-	2891
sand	2891	-	2901
shale	2901	-	3020
TD	3020		
T.DLogger	2988	KB	
T.DDriller	3020	KB	

06/21/2012 47-033-03954 F

27701 27761

State of West Virginia **Division of Environmental Protection** Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

FLETCHER, FREDERICK L., ET A

Operator Well No.: J.T. WILLIAMS 13

LOCATION:

Elevation:

1,115'

Quadrangle:

WOLF SUMMIT 7.5'

District:

TEN MILE

County: HARRISON

Latitude:

11,535 Feet south of

39 Deg 20 Min

Longitude: 3,045 Feet west of

0 Sec. 80 Deg 27 Min 30 Sec.

Company Address:	HG Energ PO Box 55 Vienna, W	19	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Tristan	Jenkins				
Date Permit Is	sued: (06/21/2012				
Date Well Wo	rk Commenced:	09/05/2012	_]			
Date Well Wo	rk Completed:	09/12/2012		·		
Verbal Pluggi	ng:					
Date Permissi	on Granted On:					
Rotary X	Cable	Rig	8 5/8"	404'	404'	115 sks
Total vertical	Depth (ft):	2892'				
Total Measure	ed Depth (ft):					
Fresh Water D	epth (ft):	20',45'	4 ½"	2833'	2833'	450 sks
Salt Water De	pth (ft):	none				
Is Coal being	mined in ares (Y/N)	? No				
Coal Depths (ft): x	540'-548'				
	ntered (Y/N) depth(NONE	s):				

OPEN	FLOW	DATA	

* Waterflood Injector

			2//0-2//0
Producing formation	Fifth Sand	Pay zone depth (ft)	2782'-2786'
Gas: Initial open flow	* MCF/d O	il: Initial open flow	* Bbl/d
Final open flow	* MCF/d	Final open flow	* Bbl/d
Time of open flow be	etween initial and final t	tests * Ho	ours
Static rock pressure	psig (surfa	ce pressure) after	* Hours
Second producing formation		Pay zone depth (ft)	POTET AND THE
Gas: Initial open flow	MCF/d O	il: Initial open flow	Bbl/d
Final open flow	MCF/d	il: Initial open flow Final open flow	Bbl/d
Time of open flow be	etween initial and final t	lesisin	uus ,
Static rock pressure	psig (surfa	ce pressure) after 🗀	
-			memil

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information believe that the information is true, accurate, and complete.

Were	core samp	les taken?	No		Were cut	tings caught during drilling? No
Were STIM THE	ULATING. F	HYSICAL CHAN	IGE, ETC. 2)	. THE WELL LOG WI	HICH IS A S OAL ENCO	or Geophysical logs recorded on this well? PERFORATED INTERVALS, FRACTURING OR SYSTEMATIC DETAILED GEOLOGICAL RECORD OF DUNTERED BY THE WELLBORE FROM SURFACE TO
<u>Treat</u>	ment :	_		5', 2778'-2780', & 00# 20/40 sand.	2782'-278	'86' w/ 1000 gals 15% HCL acid, 291 bbls
Well]	Log:	See original V	WR35			

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State of West Virginia Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

HERROD, DON M. & DEBRA L.

Operator Well No.: H. FLANAGAN 6

LOCATION:

Elevation:

1,325'

Quadrangle:

WOLF SUMMIT 7.5'

Sec.

District:

TEN MILE

County: HARRISON

Latitude:

8,490 Feet south of

39 Deg 20 Min 0

Longitude:

2,360 Feet west of

80 Deg 27 Min 30 Sec.

Company Address:	HG Energy PO Box 55 Vienna, W	19	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Tristan	Jenkins				
Date Permit Is	ssued: (06/19/2012				
Date Well Wo	ork Commenced:	09/04/2012				
Date Well Wo	ork Completed:	09/12/2012				
Verbal Pluggi	ng:					· - · · - · · - · · · · · · · · · · · ·
Date Permissi	on Granted On:					
Rotary X	Cable	Rig	8 5/8"	659'	659'	210 sks
Total vertical	Depth (ft):	3,018'				
Total Measure	ed Depth (ft):					
Fresh Water I	Depth (ft):	none	4 1/2"	2962'	2962'	385 sks
Salt Water De	pth (ft):	none				
Is Coal being	mined in ares (Y/N)	? No				
Coal Depths (ft): x	552'-560'				
Void(s) encou	intered (Y/N) depth(NONE	s):				

OPEN FLOW I	OATA * Wate	erflood Injector				2912'-2914'
Produc	ing formation	Fifth Sa			ne depth (ft)	2922'-2924'
Gas:	Initial open flow	*	MCF/d	Oil: Initial open	flow	*Bbl/d
	Final open flow	*	MCF/d	Final open f	low	* Bbl/d
	Time of open flow	between initial	and fina	l tests	* <u>Ho</u>	
Static 1	rock pressure	*	psig (su	rface pressure)	after	* Hours
	• • • • • • • • • • • • • • • • • • • •		. •	_	THE ALL	000
Second	d producing formation			Pay zoi	ne depth (ft).	O. Can
Gas:	Initial open flow	-	MCF/d	Oil: Initial open	flow	Bbl/d
C	Final open flow		MCF/d	Final open f		Bbl/d
	⁻ ^ ~	between initial	and fina	l tests	Ho	urs
Static	Time of open flow rock pressure halty of law that I have personal that, based on my inquiry o		psig (su	rface pressure)	after	Hours CON
I certify under pen	alty of law that I have perso	onally examined and	am familia	r with the informatio	n submitted of	is document and all the
attachments and	that, based on my inquiry o	f those individuals in	mmediately	responsible for obtain	ining the intorpic	ition I believe that the
March Indian min	that, based on my inquiry o	information is true	, accurate,	and complete.	Wille	

Were c	ore samp	les taken?	No			ttings caught during drilling? No
Were STIMI THE T	Y Y/N NOTE: IN T ULATING, F OPS AND I	Electrical, THE AREA BELO PHYSICAL CHAN BOTTOMS OF A	N Y/N W PUT THE FI IGE, ETC. 2). 1 LL FORMATIO	OLLOWING: 1). I THE WELL LOG ' NS. INCLUDING	Y/N DETAILS O	or Geophysical logs recorded on this well? F PERFORATED INTERVALS, FRACTURING OR A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF COUNTERED BY THE WELLBORE FROM SURFACE TO
Treat	ment :	Treated perfs cross linked a	2912'-2914' gel, and 20,0	, 2918'-2920', 00# 20/40 san	2922'-292 d.	4' w/ 1000 gals 15% HCL acid, 291 bbls
Well :	Log:	See original	WR35			

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 11/19/2012

API#:

47-033-05549->

*UPDATED

Min. 00 Min. 30 3.8 Used in drilling 94# 40' " 55# 476' 2620	_SecSec	Cement fill up Cu. Ft. 38 Cu. Ft. Class A	
Min. 00 Min. 30 g. & Used in drilling 94# 40' " 55# 476'	Left in well 40' 476'	up Cu. Ft. 38 Cu. Ft. Class A	
Min. 00 Min. 30 g. & Used in drilling 94# 40' " 55# 476'	Left in well 40' 476'	up Cu. Ft. 38 Cu. Ft. Class A	
g & Used in drilling 94# 40'	Left in well 40' 476'	up Cu. Ft. 38 Cu. Ft. Class A	
drilling 94# 40' " 55# 476'	40' 476'	up Cu. Ft. 38 Cu. Ft. Class A	
drilling 94# 40' " 55# 476'	40' 476'	up Cu. Ft. 38 Cu. Ft. Class A	
" 55# 476'	476'		
		661 Cu Ft Class A	
36# 2620		001 00.1 L 01855 A	
	' 2620'	1067 Cu. Ft. Class A	
20# 17,12	9' 17,129'	4275 Cu. Ft. Class H	
Depth-7	Top Bottom		
nt Plug 5873	6073'	150 Cu. Ft. Class A	
4.6# 7117	-		-
	O	me a on	Ga
		N V 2 (5 3)	2
	W	N Deparm	३०१ (
face	Envir	domental Pr	rote
		-	
	4.6# 7117 face e include addition	1t Plug 5873' 6073' 4.6# 7117' We face Envir	4.6# 7117' ALCENTA WY Departition face Environmental P

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Were core samples taken? Yes	No_X Were	cuttings caught during drilling? YesNo	<u>X</u>
Were Electrical, Mechanical or Geople	weight love recorded on this wall?	If we nlease list Yes, CBL.	
This is a subsequent well. Antero only runs wireline logs on	Tysical Togs recorded on this Well? the first well on a multi-pad (Southern Unit 2H API# 47-03	3-05363). Please reference wireline logs submitted with Form WR-35 for Souther	m Unit 2H.
FRACTURING OR STIMULATI	NG, PHYSICAL CHANGE, ETC CORD OF THE TOPS AND B	1). DETAILS OF PERFORATED INTER . 2). THE WELL LOG WHICH IS A SYSTEM OTTOMS OF ALL FORMATIONS, INCLU- TO TOTAL DEPTH.	MATIC
Perforated Intervals, Fracturing, or St	imulating:		
Perforations: 7127' - 16,798' N	1D (1884 holes)		
Frac'd w/ 14,008 gals 15% HC	L Acid, 206,991 bbls Slick V	later carrying 1,114,000# 100 mesh,	· · · · · · · · · · · · · · · · · · ·
4,132,200# 40/70 and 2,565,50	00# 20/40 sand.		
	<u> </u>		
Plug Back Details Including Plug Typ	pe and Depth(s):		
			
Formations Encountered:	Top Depth	/ Bottom Depth	
Surface:	Top Deptil	/ Bolton Deptil	
Big Lime	1,402'	1,494'	
Big Injun	1,495'	1,907'	
Gantz Sand	1,908'	1,964'	
Fifty Foot Sand	1,965'	2,162'	
Gordon	2,163'	2,402'	
Fifth Sandstone	2,403'	2,471'	
Bayard	2,472'	3,134'	
Speechley	3,135'	3,309'	
Balltown	3,310'	3,832'	
Bradford	3,833'	4,419'	
Benson	4,420'	4,809'	
Alexander	4,810'	5,004'	
Elk	5,005'	5,589'	
Rhinestreet	5,590'	6,278'	
Sycamore SS	6,279'	6,731'	
Burkett	6,732'	6,756'	
Tully	6,757'	6,884'	
Hamilton	6,885'	6,971'	
Marcellus	6,972'	7,049' TVD	

REVISED

State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE:	11-19-2012
API #:	47-069-00062

Office of Oil and Gas
Well Operator's Report of Well Work

name: George Gantzer 10H	Operator Well No.: 832660						
ATION: Elevation: 1260'	Quadrangle: Valley Grove						
District: Tridelphia	County: Ohio						
Latitude: 4760' Feet South of 40 Deg.							
Longitude 13930' Feet West of 80 Deg. Chesapeake Appalachia, L.L.C.	35 <u>Mir</u>	. <u>ºº</u> Seo	.				
Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.			
Oklahoma City, OK 73154-0496	20"	100'	100'	354 Cu. Ft.			
Agent: Eric Gillespie	13 3/8"	647'	647'	679 Cu. Ft.			
Inspector: Bill Hendershot	9 5/8"	2120'	2120'	926 Cu. Ft.			
Date Permit Issued: 10-26-2010	5 1/2"	11991'	11991'	2616 Cu. Ft.			
Date Well Work Commenced: 2-24-2012							
Date Well Work Completed: 5-9-2012							
Verbal Plugging:							
Date Permission granted on:							
Rotary Cable Rig							
Total Vertical Depth (ft): 6501'		1					
Total Measured Depth (ft): 11991'							
Fresh Water Depth (ft.): 30'							
Salt Water Depth (ft.): 1135'							
Is coal being mined in area (N/Y)? N							
Coal Depths (ft.): 575'							
Void(s) encountered (N/Y) Depth(s) Y 580'			<u> </u>	<u> </u>			
PEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay 2 Gas: Initial open flow MCF/d Oil: Initial open flow Time of open flow between initial and final tests 96 Static rock Pressure 4220* psig (surface pressure) afformation Pay 201 Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow MCF/d Final open flow Time of open flow between initial and final tests	cone depth (ft) owB / 83B Hours terHou ne depth (ft) owB	6.650-11.876 Bbl/d bl/d 5 *Calculated ars Bbl/d bl/d	EHVII	OFFICE OF ULL TOP			

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marley Williams
Signature

119-2013

Were core samples taken? YesNo_N	Were cuttings caught during drilling? Yes Y No
Were Electrical, Mechanical or Geophysical logs recorded on the LWD GR from 5958-11991' MD.	is well? If yes, please list
FRACTURING OR STIMULATING, PHYSICAL CHANG	WING: 1). DETAILS OF PERFORATED INTERVALS, GE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC AND BOTTOMS OF ALL FORMATIONS, INCLUDING URFACE TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimulating:	
(See Attached)	
Plug Back Details Including Plug Type and Depth(s):	
	· · · · · · · · · · · · · · · · · · ·
Formations Encountered: Top De Surface:	pth / Bottom Depth
(See Attached)	
·	

LATERAL SIDETRACK WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 6501 ft TVD @ 11434 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS/SS	0	0	575	575
PITTSBURG COAL	575	575	585	585
LS/SHALE	585	585	700	700
SS	700	700	1200	1200
SHALE	1200	1200	1290	1290
SS	1290	1290	1750	1750
BIG LIME (LS)	1750	1750	1800	1800
BIG INJUN (SS)	1800	1800	2011	2011
SHALE	2011	2011	6384	6216
GENESEO (SH)	6384	6216	6414	6239
TULLY (LS)	6414	6239	6463	6274
HAMILTON (SH)	6463	6274	6651	6377
MARCELLUS (SH)	6651	6377		
TD OF LATERAL			6493	11991

PERFORATION RECORD ATTACHMENT

Well Number and Name: 832660 George Gantzer 10H

PERFO	RATION RE	CORD				STIMULAT	10N RECO	RD		
	Interval P	erforated				F	luid	Proppi	ing Agent	Average
Date	From	To	Date	Interval	Treated	Туре	Amount	Туре	Amount	Injection
4/15/2012	11,515	11,876	5/7/2012	11,515	11,876	Slk wtr	10,167	Sand	507,295	71
5/7/2012	10,640	11,211	5/7/2012	10,640	11,211	Slk wtr	10,848	Sand	598,465	79
<i>5/7/</i> 2012	9,975	10,551	5/7/2012	9,975	10,551	Slk wtr	9,922	Sand	599,100	86
5/7/2012	9,310	9,881	5/8/2012	9,310	9,881	Slk wtr	8,611	Sand	598,620	83
5/8/2012	8,645	9,216	5/8/2012	8,645	9,216	Slk wtr	11,081	Sand	599,620	81
5/8/2012	7,980	8,551	5/8/2012	7,980	8,551	Sik wtr	11,837	Sand	598,900	84
5/8/2012	7,315	7,886	5/9/2012	7,315	7,886	Sik wtr	8,250	Sand	598,580	82
5/9/2012	6,650	7,221	5/9/2012	6,650	7,221	Sik wtr	10,179	Sand	585,660	83
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